

SLONIMSKIY, G.L.; ROGOVINA, L.Z.

Stress relaxation process in polypropylene. Vysokom. soed. 6 no.2:314-320  
F '64. (MIRA 17:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

ACCESSION NR: APL032563

S/0190/64/006/004/0620/0623

AUTHORS: Slonimskiy, G. L.; Rogovina, L. Z.

TITLE: Determination of mechanical characteristics of polymer material by stress relaxation under constant deformation

SOURCE: Vyssokomolek. soyedin., v. 6, no. 4, 1964, 620-623

TOPIC TAGS: mechanical characteristic, polymer, stress relaxation, constant deformation, crystalline polypropylene

ABSTRACT: Letting  $\sigma(t)$  be stress at time  $t$ ,  $E(t) = \sigma(t)/\epsilon_0$  be the modulus of elasticity at time  $t$ ,  $\epsilon_0$  -- the deformation under which stress relaxation takes place,  $E_\infty$ ,  $E_0$ ,  $a$ ,  $k$  and  $T = 1/a^{1/k}$  -- constants characterizing the polymer, the authors use the formula

$$\sigma(t) = E_\infty \epsilon_0 + E_0 \epsilon_0 e^{-at^k} \quad (1)$$

Card 1/2

ACCESSION NR: AP4032563

or

$$E(t) = \frac{\sigma(t)}{\epsilon_0} = E_\infty + E_0 e^{-at^k} = E_\infty + E_0 e^{-(t/t)^k}, \quad (2)$$

to describe stress relaxation in polymer substances. They give an example of determination of the constants  $E_0$ ,  $E_\infty$ ,  $a$ , and  $k$  from experimental data. These constants make it possible to analyze the relaxation process and the effects of various factors on it. Structural changes in crystalline polypropylene are studied. Orig. art. has: 23 formulas and 3 graphs.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Organoelemental Compounds, AN SSSR)

SUBMITTED: 13Apr63

DATE ACQ: 11May64

ENCL: 00

SUB CODE: OC

NO REF Sov: 003

OTHER: 001

Card 2/2

ACCESSION NR: APL037277

S/0190/64/006/005/0818/0822

AUTHORS: Slonimskiy, G. L.; Musayelyan, I. N.; Kazantseva, V. V.; Ozerov, G. M.

TITLE: Mechanical properties of polymer mixtures. 2. Mixing an amorphous polymer with an amorphous one, and a crystalline polymer with a crystalline one

SOURCE: Vyssokomolekulyarnye soyedineniya, v. 6, no. 5, 1964, 818-822

TOPIC TAGS: crystalline polymer mixture, polypropylene polyethylene mixture, amorphous polymer, polypropylene polyisobutylene mixture, thermomechanical curve, relative stress, elongation

ABSTRACT: These investigations involved mixtures of amorphous polypropylene (APP) (mol. wt. 25 700) with amorphous polyisobutylene (APIB) (mol. wt. 100 000), and of crystalline isotactic polypropylene (CPP) (mol. wt. 347 000) with polyethylene (CPE) (mol. wt. 20 000). Mixtures in ratios 1:0, 3:1, 1:1, 1:3, and 0:1 were prepared from solutions of the polymers in decaline at 130-140°C by precipitation with acetone. They were dried in vacuum at 100G. Films of the amorphous components were pressed at 150°C under 100 kg/cm<sup>2</sup>, and films of the crystalline components were pressed at 240°C under 100 kg/cm<sup>2</sup>. A study of CPP-CPE mixtures, conducted with a

Card 1/2

ACCESSION NR: AP4037277

polarizing microscope MIN-8, revealed their heterogeneous structure. The thermo-mechanical curves within a 0-175°C range showed that the temperature of flow rose with the increase of CPP content. The same was true for the strength of the crystalline polymer mixture. It was also found that a noticeable deformation trend set in following the melting of a large part of CPP. Studies of the relation between the relative stress and the elongation of the amorphous APP-PIB mixtures (at 20, 40, and 60°C) revealed a more rapid decrease of deformation in mixtures with a predominance of APP. Orig. art. has: 4 charts and 1 picture.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elementoorganic Compounds, AN SSSR)

SUBMITTED: 01Jun63

DATE ACQ: 09Jun63

ENCL: 00

SUB CODE: MT , OC

NO REF Sov: 002

OTHER: 000

Card 2/2

ACCESSION NR: AP4037278

S/0190/64/006/005/0823/0826

AUTHORS: Slonimskiy, G. L.; Musayelyan, I. N.; Kazantseva, V. V.

TITLE: Mechanical properties of polymer mixtures. 3. Mixing polyisobutylene with polyethylene. Densities of the polymeric mixtures

SOURCE: Vyssokomolekulyarnye soyedineniya, v. 6, no. 5, 1964, 823-826

TOPIC TAGS: polymer mixture, polyisobutylene polyethylene mixture, thermomechanical property, polymer mixture density

ABSTRACT: The present investigation involved polyisobutylene (mol. wt. 100 000) and high pressure polyethylene (mol. wt. 20 000), compounded in ratios of 1:3, 1:1, and 3:1. Aliquots of the crystalline and amorphous polymers were dissolved in decalin at 130-140°C in an atmosphere of nitrogen. They were then precipitated with acetone and dried in vacuum at 100°C. Films made from these samples were pressed at 200°C and 100 kg/cm<sup>2</sup>, and subjected to x-ray analysis and thermomechanical tests. The relation between the density of mixtures and their composition was determined. The x-rays and thermomechanical curves showed the incompatibility of crystalline and amorphous polymers. It was found that the densities of the mixes bear a direct

Card 1/2

ACCESSION NR: AP4037278

(almost linear) relationship to composition. Tests performed within the 20-60C range revealed that the strength of polyisobutylene was substantially below that of polyethylene. A continuous increase of strength was observed in the mixtures as their crystalline polyethylene content was raised. Mixing of the ingredients by mechanical means had a leveling effect on the maxima and minima of strengths. Orig. art. has: 4 charts.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elementoorganic Compounds, AN SSSR)

SUBMITTED: 01Jun63

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: OC

NO REF SOV: 006

OTHER: 002

Card 2/2

ACCESSION NR: AP4034924

S/0131/64/006/005/1430/1434

AUTHORS: Askadskiy, A. A.; Slonimskiy, G. L.

TITLE: Determining the parameters of transient behavior of resistance at brittle fracture

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1430-1434

TOPIC TAGS: brittle fracture, temperature transient, tensile stress, polymer, polyaryl, tetraphthalic acid, isophthalic acid, phenophthalene, polyan type dynamometer, neck formation

ABSTRACT: The temperature-transient dependence of the resistance of solids was studied by S. N. Zhukov (Vestn. AN SSSR, 11, 75, 1957), and the relation

 $\sigma = \sigma_0 e^{-\nu T}$  was derived, where  $T$  is the lifetime of the material,  $\sigma$  thestress,  $T$  the absolute temperature, and  $\sigma_0$  and  $\nu$  are constant coefficients governing the resistance of the material. In this present work the results of experiments on fracture of polymers at a constant rate of increase of the tensile stress are given, and the values of the constants  $\sigma_0$  and  $\nu$  are calculated. The material used was a polyaryl in a base of tetra- and isophthalic acids and

Card 1/3..

ACCESSION NR: AP4034924

phenophthalene, synthesized at the Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elementoorganic Compounds AN SSSR). From this material tapes were prepared and tested in a Polyan-type dynamometer at temperatures 20-150C at a grip speed of 0.066 mm/sec. As shown by the results plotted on Fig. 1 of the Enclosure, brittle fracture occurred at 80 and 150C, with practically no neck formation. The calculations showed that for the isophthalic base,  $\tau$  and  $U_0$  were 1.70 kcal/mole  $\cdot$   $mm^2/kgm$  and 28.0 kcal/mole respectively, while for the tetraphthalic base, they were 2.18 kcal/mole  $\cdot$   $mm^2/kgm$  and 33.7 kcal/mole respectively. Orig. art. has: 9 formulas and 4 figures.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR Moscow (Institute of Organoelemental Compounds, AN SSSR)

SUBMITTED: 28Nov63

ENCL: 01

SUB CODE: OC, SS

NO REF Sov: 010

OTHER: 000

Cord 2/3

ACCESSION NR: AP4034924

ENCLOSURE : 01

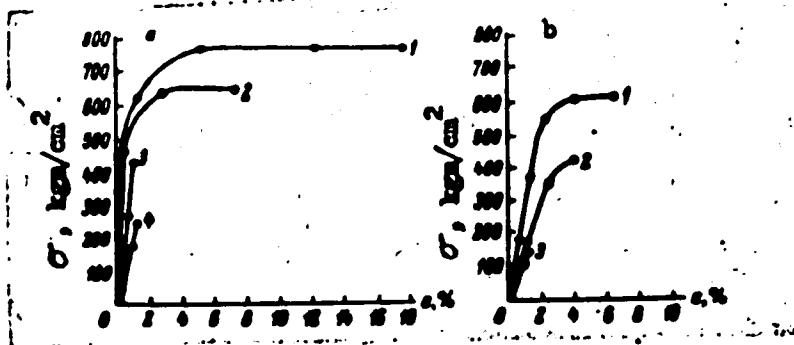


Fig. 1. Extension curves for polyaryls.  
a. Tetraphthalic base, temperature C: 1) 20; 2) 50; 3) 80; 4) 150  
b. Isophthalic base, temperature C: 1) 20; 2) 80; 3) 150

Card 3/3

S/0190/64/006/006/1001/1005

ACCESSION NR: APL4040480

AUTHORS: Slenimskiy, G. L.; Musayelyan, I. N.

TITLE: Study of the fluidity of polyisobutylene

SOURCE: Vyssokomolekulyarnye soyedineniya, v. 6, no. 6, 1964, 1001-1005

TOPIC TAGS: polymer deformation, residual deformation, elastic deformation, thermochemistry, molecular weight, polymerization coefficient, viscosity coefficient, viscous flow activation

ABSTRACT: Fluidity of polyisobutylene as a function of molecular weight was determined viscosimetrically and thermomechanically at various temperatures, stresses, and durations of flow. Molecular weights were calculated from the formula derived by V. A. Kargin and T. I. Sogolova (Zh. fiz. khimii, 23, 551, 1949).

$$\lg N = 1.35 + \frac{6.7(T_f - T_c)}{263 + (T_f - T_c)}$$

where  $T_f$  is the temperature of transformation from the highly elastic into the plastic-viscous state,  $T_c$  is the temperature of transformation from the vitreous into the highly elastic state, and  $N$  is the coefficient of polymerization. They

Card 1/3

ACCESSION NR: AP4040480

were found to be ~100 000.. Samples cut from the films 1.5 - 2.0 mm thick were studied for elongation and for the residual length. Experimental results were obtained for: 1) total deformation at increasing stress and time of stress application; 2) highly elastic deformation under stress up to 4 kg/cm<sup>2</sup>; 3) residual deformation under stress and time of stress application; 4) the relation of the initial viscosity coefficient and its logarithm to the reciprocal absolute temperature 1/T; 5) the dependence of the ratio of highly elastic elongation and sample length on the temperature and stress; 6) the activation energy of viscous flow and the high elasticity modulus. Calculations of highly elastic and residual deformations and of initial viscosity coefficients were made. These results are presented graphically as shown by Fig. 1 on the Enclosure, where the relation between logarithm of viscosity  $\eta_H$  and 1/T is seen to be linear (contrary to the previous information). Orig. art. has: 6 graphs and 3 formulas.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elementoorganic Compounds, AN SSSR)

SUBMITTED: 01Jun63

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ENCL: 01

SUB CODE: MT

NO REF SOV: 009

OTHER: 001

Card 2/3

ENCLOSURE: 01

ACCESSION NR: AP4040480

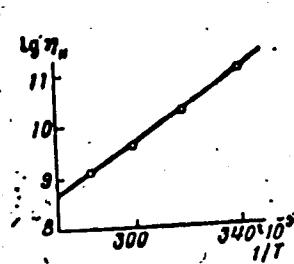


Fig. 1. Relation of  $\log \eta_H$  to  $1/T$

Card 3/3

ACCESSION NR: AP4043787

S/0190/64/006/008/1483/1486

AUTHOR: Reztsova, Ye. V., Chubarova, G. V., Slonimskiy, G. L.

TITLE: Mechanical induced chemical processes in rubber fatigue

SOURCE: Vy'sokomolekulyarnye soyedineniya, v. 6, no. 8, 1964, 1483-1486

TOPIC TAGS: rubber, rubber fatigue, rubber mechanical treatment, rubber rolling, fatigue prevention, vulcanate

ABSTRACT: The fatigue resistance of unsaturated vulcanates of natural rubber containing 0.5 wt. % stearic acid, 5 wt. % zinc oxide, 0.7 wt. % Kaptax, and 3 wt. % sulfur was investigated in nonmachined or rolled samples, using phenyl- $\beta$ -naphthylamine, N-phenyl-N'-cyclohexyl-p-phenylenediamine, 2, 2, 4-trimethyl-6-ethoxydihydroquinoline, and 2, 2'-methylene-bis-(4-methyl-6-butylphenol) as anti-fatigue agents. The agents were introduced into nonmachined samples by absorption from benzene solution, and into machined samples before they were rolled together for 5 1/2 hrs. The fatigue resistance was measured on a specially designed laboratory device, described in an earlier paper, which permitted repeated stretching of samples in various media and in a vacuum. The results of the tests (see Fig. 1 in the Enclosure) show that anti-fatigue agents introduced without machining

Card 1/4

ACCESSION NR: AP4043787

exert a greater positive effect on fatigue resistance than agents introduced by rolling. This effect is linked to consumption of the agent by chemical reactions with the macroradicals of the rubber, induced by mechanical treatment. Orig. art. has: 2 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinoi promyshlennosti (Scientific Research Institute of the Tire Industry).

SUBMITTED: 02Oct63

ENCL: 0X2

SUB CODE: MT

NO REF Sov: 006

OTHER: 000

Card 2/4

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9

ACCESSION NR: AP4043787

ENCLOSURE: 01

Card 3/4

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9"

ACCESSION NR: AP4043787

ENCLOSURE: 02

Fig. 1. Fatigue resistance of unsaturated NK rubber after introduction of anti-fatigue agents (a - N-phenyl-N'-cyclohexyl-p-phenylenediamine; b - 2, 2, 4-trimethyl-6-ethoxydihydroquinoline; c - 2, 2'-methylene-bis-(4-methyl-6-*tert.* butylphenol)) by various methods: 1 - no anti-fatigue agent; 2 - 1% anti-fatigue agent added on the rollers; 3 - 1% anti-fatigue agent introduced by swelling; 4 - control sample not containing an anti-fatigue agent but allowed to swell in pure solvent. (Ordinate = thousands of cycles.)

Card 4/4

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7, S/0020/64/156/004/0924/0925

ACCESSION NR: AP4041160

AUTHOR: Slonimskiy, G. L.; Korshak, V. V.; Vinogradova, S. V.; Kitaygorodskiy, A. I.; Askadskiy, A. A.; Salazkin, S. N.; Belavtseva, Ye. M.

TITLE: Physico-chemical means of regulating supermolecular structure and mechanical properties of amorphous polyarylate F-1.

SOURCE: AN SSSR. Doklady\*, v. 156, no. 4, 1964, 924-925, and insert facing p. 925

TOPIC TAGS: polyarylate, supermolecular structure, amorphous polymer, mechanical property, control, regulation, phenolphthalein isophthalic acid polymer, polymerization, reaction medium, brittleness, elongation, strength, impact strength, rigid macromolecular structure

ABSTRACT: The supermolecular structure and consequently the mechanical properties, especially the brittleness, of amorphous polyarylate F-1 (phenolphthalein-isophthalic acid based polymer) were improved by selecting a new polymerization reaction medium. Electron microscopic comparison of F-1 polymerized as previously in ditolylmethane in which it is insoluble and polymerized in *c*-chlorophthaleine in which it is soluble showed the structure no longer comprised a multitude of fine weakly bonded spherical particles, but was fibrillar with no fractures. In the

Card 1/2

L 4918-65 EWT(1)/EWT(2)/EPP(2)/EPB/EWP(1)/I/ENF(k) PC-4/FC-4/FC-4/Ps-4/F1-4  
ACCESSION NR: AP4045636 AS(mp)-2/ASD(m)-3 S/0020/64/158/002/0446/0447  
WW/RM

AUTHOR: Faerman, V. T.; Coryachko, G. V.; Slonimskiy, G. L.

TITLE: Role of supramolecular structure in the destruction of polymers in an ultrasound field B

SOURCE: AN SSSR. Doklady\*, v. 158, no. 2, 1964, 446-447, and insert facing p. 446

TOPIC TAGS: polymer, amorphous polymer, crystalline polymer, supramolecular structure, spherulite, ultrasound, ultrasound treatment, polymer destruction

ABSTRACT: The effect of ultrasound on the structure and mechanical properties of polymers has been studied for amorphous poly(vinyl chloride) (PVC), and for crystalline polyethylene (PE) and polypropylene (PP) films in distilled water. The destruction stages of the films were observed with a polarizing microscope. Micrographs indicated that ultrasound causes tensile and compressive stresses which can result in various destructive mechanisms; depending on the supramolecular structure of the polymers. Destruction of amorphous PVC

Card 1/4

L 8918-65

ACCESSION NR: AP4045636

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and fine-crystalline PE and PP films proceeds by formation of individual cracks which grow in arbitrary directions to form a network. In PP films with a coarse spherulite structure, cracks are formed at the spherulite boundaries. Ultrasound treatment of PP films with a heterogeneous (fine and coarse) crystalline structure results only in the destruction of coarse spherulite regions along well-defined boundaries, owing to the higher overstresses in these regions. It is concluded that the destruction process of crystalline polymer films in an ultrasonic field depends on the size of elements of supramolecular structure and probably, on the inner structure of these elements. The dependence of the strength of PP with various supramolecular structures on the duration of treatment with ultrasound is given in Fig. 1 of the Enclosure. Orig. art. has: 4 figures.

ASSOCIATION: Kalininskiy nauchno-issledovatel'skiy institut tekstil'noy promyshlennosti (Kalinin Scientific Research Institute of the Textile Industry); Kalininskiy pedinstitut (Kalinin Pedagogical Institute); Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Organoelemental Compounds, Academy of Sciences SSSR)

Card 2/4

L 8918-65

ACCESSION NR: AP4045636

SUBMITTED: 13Apr64

ATD PRESS: 3110

ENCL: 01

SUB CODE: OC GP

NO REF Sovt: 004

OTHER: 001

Card 3/4

L 8918-65  
ACCESSION NR: AP4045636

ENCLOSURE: 01

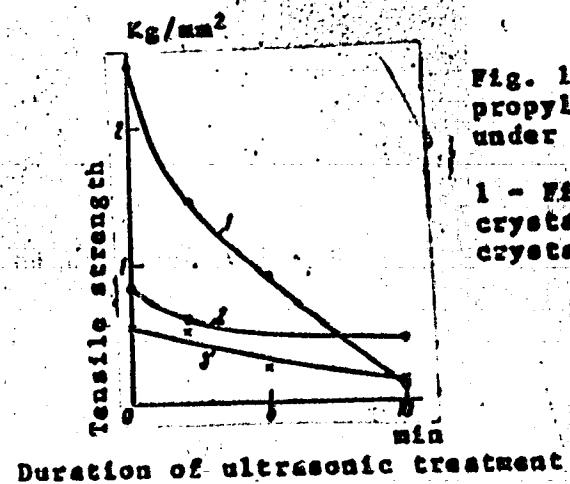


Fig. 1. Change of the strength of polypropylene films with various structures under the effect of ultrasound  
1 - Fine-crystalline films; 2 - macro-crystalline films; 3 - heterogeneous crystalline films.

Card

4/4

SLONIMSKIY, I.L.; MUSAYELYAN, I.M.; KAZANTSEVA, V.V.

Mechanical properties of polymer mixtures. Vysokom. soed. 6 no.2:219-  
223 F '64. (MIRA 17:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 41150-65 EWC(j)/EPA(s)-2/EWT(m)/EPF(c)/EPR/EWP(j)/T/EWA(h)/EWA(l) Pg-4/  
Pr-4/Ps-4/Pt-10/Peb RPL W/W/GS/RM  
ACCESSION NR: AT5002110

S/0000/64/000/000/0042/0045

56

49

B71

AUTHOR: Freydlina, R. Kh.; Kolesnikov, G. S.; Slonimskiy, G. I.; Suprun, A. P.;  
Soboleva, T. A.; Belyavskiy, A. B.; Yershova, V. A.

TITLE: New chlorinated monomers for the synthesis of noncombustible polymers

SOURCE: AN SSSR. Institut neftekhimicheskogo sinteza. Sintez i svoystva monomerov  
(The synthesis and properties of monomers). Moscow, Izd-vo Nauka, 1964, 42-45

TOPIC TAGS: fire resistant polymer, polymer mechanical property, chlorinated polymer,  
chloroalkene polymerization, telomerization, dehydrohalogenation, radiation polymeriza-  
tion

ABSTRACT: 3,3,3-Trichloropropene and 1,1,2-trichloro-1,3-butadiene, which have been described in previously published studies, were prepared by a two-step reaction and their homo- and copolymerization was studied in an effort to obtain noncombustible polymers. 3,3,3-Trichloropropene was synthesized via 1,1,1,3-tetrachloropropane by telomerization of ethylene with carbon tetrachloride (J. Am. Chem. Soc. 70, 2529 (1948)) and dehydro-  
halogenation of 1,1,1,3-tetrachloropropane with KOH in ethylcellosoolve solution to give a 53% yield of 3,3,3-trichloropropene and 1,1,3-trichloropropene as a by-product. The latter

Card 1/3

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ACCESSION NR: AT6002110

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was also formed by isomerization during the block polymerization of 3,3,3-trichloropropene with benzoyl peroxide, and isomerization decreased the yield of solid polymer from 6.1% at 70°C to 0.2% at 100°C. A viscous, low-molecular, liquid polymer was also formed. Solid polymer was also formed in 37.3% yield in 160 hours under irradiation, and fractionated into soluble polymer and a fraction which was soluble only in tetrahydrofuran or hot benzene. Copolymers, which are not described, were formed with methyl methacrylate, styrene, vinyl acetate, and acrylonitrile. By a similar technique, 1,1,2-trichloro-1,3-butadiene was prepared via 1,1,2,4-tetrachloro-1-butene, formed in 20% yield with by-products by telomeration of ethylene with tetrachloroethylene, and by dehydrohalogenation. The copolymerization of 1,1,2-trichloro-1,3-butadiene has been described in published papers, and its homopolymerization under undefined optimal conditions yielded 99.2% block polymer (110,000 molecular weight), or 85.2% yields in emulsion polymerization with polymers of 3,500,000 molecular weight. The monomer was shown to have markedly higher activity than styrene, and the polymers showed good solubility, resistance to cold inorganic acids, high tensile strength, and adhesion to various materials. "The authors thank B. L. Tietlin for carrying out the irradiation-polymerization tests." Orig. art. has: 1 table and 4 formulas.

Card 2/3

L 41150-65  
ACCESSION NR: AT60000110

ASSOCIATION: None

SUBMITTED: 30JUL64

ENCL: 60

SUB CODE: OC, GC

NO REF Sov: 007

OTHER: 063

Card

60  
60

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9

AMERICAN POLYMER COMPANY, INC.

Effect of the addition of styrene on the formation of m-olite  
and its use as a stabilizer for polystyrene, polyethylmethacrylate.  
(MLR 17:10)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9"

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9

SECRET INFORMATION SOURCE UNKNOWN

1. Location: [REDACTED] (SAC) [REDACTED]

2. Location: [REDACTED] (SAC) [REDACTED]

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9"

L 55046-65 EWT(m)/EPF(c)/EPR/ENP(j)/T Pc-4/Pr-4/Ps-4 RPL NW/RM

ACCESSION NR: AP5011988

UR/0374/65/000/001/0036/0043  
678:539.377

35  
28  
28

AUTHORS: Slonimskiy, G. L. (Moscow); Askadskiy, A. A. (Moscow)

TITLE: Defining of parameters for temperature and stress relaxation time dependence

SOURCE: Mekhanika polimerov, no. 1, 1965, 36-43

TOPIC TAGS: stress relaxation, relaxation time, polymer, polymethylmethacrylate, polycarbonate, polyarylate

ABSTRACT: An experimental method is presented for the determination of the constants appearing in the equation for the thermal dependence of the relaxation time as proposed by G. I. Gurevich (ZhTF, 1947, 17, 1491) and others;

Here  $\tau$  - time of relaxation,  $\sigma$  - stress,  $T$  - absolute temperature,  $R$  - the gas constant,  $\tau_0$ ,  $u_0$ ,  $\gamma$  - constant coefficients describing the relaxation properties of the polymeric material. Measurements were made on three polymers:

Card 1/3

L 55046-65

ACCESSION NR: AP5011988

polymethylmethacrylate, polycarbonate (macrolon), and polyarylate F-1. The relaxometer of G. A. Dubov and V. R. Regel (ZhTF, 1955, 25, 2542) was used. Employing two different initial arrangements of the specimen and periodic heating with linearly increasing amplitude (see Fig. 1 on the Enclosure), maxima of  $\sigma$  vs temperature were obtained. Applying Maxwell's equation for an elastic-viscous body to the maxima, values for  $u_0$  and  $\gamma$  for all three polymers were calculated. It is proposed that the curve for the maxima determines the working range capacity of the polymer. It was found that polymethylmethacrylate had the smallest and polyarylate F-1 had the highest initial energy of the activation  $u_0$ . V. P. Sidorova took part in the performance of the experiments. Orig. art. has: 2 tables, 7 graphs, and 15 equations.

ASSOCIATION: none

SUBMITTED: 16Nov64

ENCL: 01

SUB CODE: OC, TD

NO REF Sov: 003

OTHER: 000

Curd 2/3

L 55046-63  
ACCESSION NR AP5011988

ENCLOSURE: 01

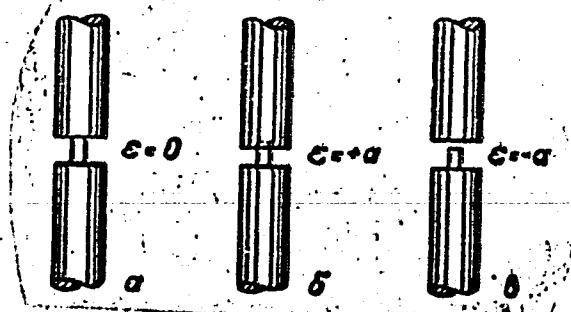


Fig. 1. Schematic position of polymer specimen and relaxometer cylinders

Card 3/3

SIDONIMSKIY, G.L.; GODOVSKIY, Yu.K.

Temperature dependence of the heat capacity of isotactic polypropylene. Vysokom. soed. 7 no.4:621-625 Ap '65.  
(MIRA 18:6)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 62766-65 EWT(1)/ENT(m)/EMP(j)/T/EMP(k) PC-4/Pf-4/Pi-4 JAJ/RM  
ACCESSION NR: AP5018431 UR/0190/65/007/007/1217/1220  
AUTHOR: Fayerman, V. T.; Goryachko, G. V.; Slonimskiy, G. L. 678.01:53 35  
TITLE: The effect of ultrasonic waves on polymer films 33  
SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 7, 1965, 1217-1220  
TOPIC TAGS: polyvinylchloride film, polypropylene film, ultrasonic wave  
ABSTRACT: The effect of ultrasonic waves on amorphous and crystalline polymer films of polyvinyl chloride (PVC) and crystalline films of isotactic polypropylene was studied. The structural changes which followed the ultrasonic irradiation were determined by means of an MF-7 polarizing microscope in ordinary transmitted and polarized light. It was found that the breakdown of amorphous PVC films and crystalline films with fine structural elements in an ultrasonic field is due to the formation and development of a network of cracks growing in arbitrary directions. The breakdown of crystalline polypropylene films having a spherulitic structure is caused by the development of cracks along the spherulite boundaries. It was shown that films having different mechanical properties could be obtained from the same crystalline polymer. The breakdown of crystalline polymers in an ultrasonic field

Card 1/2

L 62766-65

ACCESSION NR: AP5018431

2

is determined by the size of the elements of the macromolecular structure and probably also depends on the internal structure of these elements. Polymer films in which ultrasonic irradiation induces the formation of networks of cracks growing in arbitrary directions were found to be the least stable. "Yu. O. Glazovskiy [VNIISV] participated in the preparation of the films." Orig. art. has: 2 figures.

ASSOCIATION: Nauchno-issledovatel'skiy institut tekstil'noy promyshlennosti  
(Scientific Research Institute of the Textile Industry)

SUBMITTED: 03Aug64

ENCL: 00

SUB CODE: MT

NO REF SOV: 006

OTHER: 000

aum  
Card 2/2

SLONIMSKIY, G.I.; BIKAREVA, T.A.

Anisotropy of thermal conductivity in uniaxially oriented polymer  
films. Vysokom.sced. 7 no.7:1276-1278 Ju '65. (MIRA 18:8)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

SLOVINSKIY, G.L.; PAVLOV, V.I.

Effect of the type and size of elements of the supermolecular  
structure of a polymer on its mechanical properties. Vysokom.sod.  
7 no.7:1279-1282 Jl '65. (MIRA 18:8)

1. Institut elementorganicheskikh soyedineniy AN SSSR.

L 14571-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6004390

(A)

SOURCE CODE: UR/0020/66/166/003/0593/0594

AUTHOR: Andrianov, K. A. (Academician); Slonimskiy, G. L.; Kitaygorodskiy, A. I.  
Zhdanov, A. A.; Belavtseva, Ye. M.; Levin, V. Yu.ORG: Institute of Heteroorganic Compounds, Academy of Sciences SSSR (Institut elemento-  
organicheskikh soyedineniy Akademii nauk SSSR)

TITLE: Morphological forms of high-elastic polymers 74456

SOURCE: AN SSSR. Doklady v. 166, no. 3, 1966, 593-594

TOPIC TAGS: morphological form, high elastic polymer, silicone, polysiloxane

ABSTRACT: Recent studies of morphological forms in high-elastic polymers have disproved the older theory of high elasticity which is based on the idea of random entangled macromolecules. V. A. Kargin and associates (DAN, 144, 1089, 1962) have observed fibrillar structures in these polymers. In this study the morphological forms of high-elastic polymers have been studied with polyaluminodimethylsiloxanes (I) synthesized by polycondensation of aluminum butoxide with a,  $\omega$ -dihydroxypolydimethylsiloxane. The morphological forms of I were investigated by electron microscopy. It was shown to have a globular structure with globular formations varying in size from 50—100 to over 1000 $\text{\AA}$ . The small globules were, possibly, macromolecules. The large globular formations consisted of small globules which were either aggregated as a result of molecular interaction, or linked by chemical bonds formed in polycon-

Card 1/2

UDC: 541.68

L 14571-66

ACC NR: AP6004390

densation, or both. This globular structure, formed in two steps, is apparently one of the common morphological forms in amorphous polymers both in the high-elastic and the glassy (G. L. Slonimskiy, V. V. Korshak, et al. DAN, 156, 924, 1964) states. The presence of globular and above-mentioned fibrillar morphological forms in high-elastic polymers raises the following problems: 1) fundamental review of the older theory of high elasticity; 2) studies of the effect of the morphological forms of amorphous polymers and their high-elastic and mechanical properties; 3) determination of the effect of the synthesis conditions and conditions for the formations of a solid or elastic body on the type of morphological forms produced. Orig. art. has: 1 figure.

(30)

SUB CODE: 11/ SUBM DATE: 20Jul65/ ORIG REF: 007/ ATD PRESS: 4/70

PC  
Card 2/2

L 16103-66 EWP(j)/EWT(m) RM/WW  
ACC NR: AP6003250 (A)

SOURCE CODE: UR/0020/65/165/006/1323/1324

AUTHOR: Slonimskiy, G. L.; Korshak, V. V. (Corresponding member AN SSSR);  
Vinogradova, S. V.; Kitaygorodskiy, A. I.; Askadskiy, A. A.; Salazkin, S. N.; 51  
Belavtseva, Ye. M. 53

ORG: Institute of Hetero-organic Compounds, Academy of Sciences, SSSR (Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR) B  
4413

TITLE: Difference in supramolecular structures of amorphous polyarylates obtained by interfacial polycondensation and high-temperature polycondensation in homogeneous media

SOURCE: AN SSSR. Doklady, v. 165, no. 6, 1965, 1323-1324, and insert facing p. 1324

TOPIC TAGS: polyaryl plastic, interfacial polycondensation, polycondensation, polymer, impact strength, tensile strength

ABSTRACT: Electron-microscopic and mechanical studies were carried out on specially synthesized types of F-7 polyarylates (products of polycondensation of terephthaloyl chloride with phenolphthalein anilide). The results fully confirmed the hypothesis that in interfacial polycondensation, when the polymer is formed at the interface of two liquid phases in which it is insoluble, the supramolecular

Card 1/2

UDC: 541.64 2

L 16103-66  
ACC NR: AP6003250

2

structure should be globular, whereas in homogeneous polycondensation in a solvent medium, the structure of the polymer is predominantly fibrillar. The mechanical properties were consistent with these observations: polyarylate F-7, prepared by 15 polycondensation in a homogeneous medium, had a greater impact and tensile strength and higher softening point than polyarylate F-7-M, synthesized by interfacial polycondensation. This fact is particularly notable, since it shows that an amorphous polymer of the same chemical structure can have different softening points depending upon the supramolecular structure. Orig. art. has: 1 table.

SUB CODE: W, 67// SUBM DATE: 14Jul65 / ORIG REF: 004

L 04765-67 ENT(n)/EWP(j) IHP(c) MM/LJ/RM  
ACC NR: AP6023395 (A) SOURCE CODE: UR/0374/66/000/003/0355/0358

41  
B

AUTHOR: Alksne, K. I.; Aynbinder, S. B.; Slonimskiy, G. L.

ORG: Institute of Polymer Mechanics, Academy of Sciences, Latvian SSR, Riga  
(Institut mekhaniki polimerov Akademii nauk Latviyskoy SSR)

TITLE: Effect of hydrostatic pressure on the density of certain polymer materials

SOURCE: Mekhanika polimerov, no. 3, 1966, 355-358

TOPIC TAGS: hydrostatic pressure, material deformation, thermoplastic material

ABSTRACT: Compression tests were performed on (1) amorphous thermoplastics which are in the vitreous state at room temperature (organic glass and vinyl plastic), (2) crystalline thermoplastics (kapron and high-pressure polyethylene) and (3) space-network thermoplastics (ebonite and FKP-1). The tests were carried out at atmospheric pressure ( $1 \text{ kg/cm}^2$ ) and hydrostatic pressures of 500, 1000 and  $1500 \text{ kg/cm}^2$ . The average deformation rate was 5 mm/min. The application of hydrostatic pressure was found to cause an increase in the density of ebonite and caused virtually no change in the density of the other materials. At sufficiently high deformations, uniaxial compression decreased the average density of all the polymers; the rate of decrease in density falls off when the materials are simultaneously acted upon by hydrostatic pressure. In the compression of vinyl plastic, organic glass and ebonite, a considerable increase in density is observed as the deformation increases up to values of the order

Card 1/2

UDC: 678.531.424

L 04960-67

ACC NR: AP6023395

O

of 23%, i. e., until the height ( $h$ ) of the specimens becomes equal to their diameter ( $d$ ); this is attributed to a change in the stress condition, which changes when  $\frac{d}{h} = 1$ .  
Orig. art. has: 6 figures.

SUB CODE: 11/ SUBM DATE: 07Dec65/ ORIG REF: 010

Card 2/2 RR

L 18346-66 EWT(m)/EMP(j)/T/ETC(n)-6 WW/RM  
ACC NR: AP6003416 A SOURCE CODE: UH/0190/66/008/001/0080/0087

AUTHORS: Papkov, V. S.; Slonimskiy, G. L.

ORG: Institute of Heteroorganic Compounds, AN SSSR (Institut  
elementoorganicheskikh soyedineniy AN SSSR)

TITLE: Microthermogravimetric analysis of thermal degradation of polymers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 1, 1966, 80-87

TOPIC TAGS: polymer, resin, thermal decomposition/ UVDT-01-3-500 apparatus

ABSTRACT: Thermal degradation of polyethylene, polymethylmethacrylate, polystyrene,<sup>15</sup> and polyarylate<sup>17-1</sup> was studied to evaluate the possibility of determining the thermal degradation of polymer microquantities by a microthermogravimetric method. The investigation was carried out on a special apparatus<sup>15</sup> UVDT-01-3-500 which permitted the study of microquantities of polymer ranging from 0.1 to 500 mg. The experimental results are presented in graphs and tables (see Fig. 1). A critical discussion of the currently available treatments of thermogravimetric data is presented. It is concluded that, if the work is carried out on microquantities

UDC: 678.01:54

Card 1/3

L 18346-66  
ACC NR: AP6003416

of material, it is possible to derive the kinetic parameters for polymer degradation by the solution of three simultaneous equations for the point of

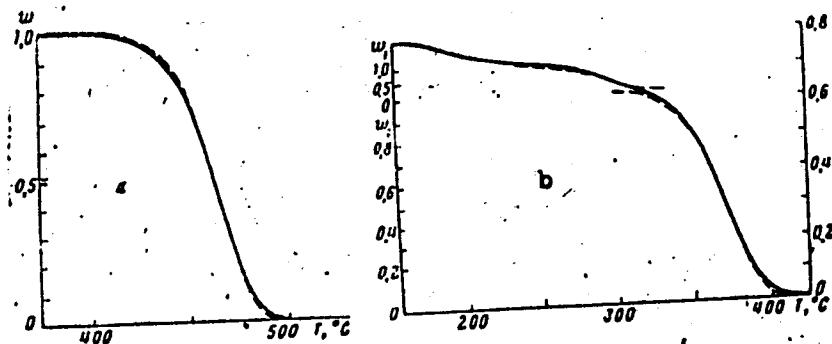


Fig. 1. Thermo-gravimetric destruction curve. a - polyethylene, b - polymethylmethacrylate, c - polystyrene, d - polyarylate  
F-1. Solid line - experimental curve, dotted

Card 2/3

L 3251-1966/008/005/0898/0902  
ACC NR: AP6/15G54 (A)

SOURCE CODE: UR/0190/66/008/005/0898/0902

AUTHOR: Andrianov, K. A.; Slonimskiy, G. L.; Zhdanov, A. A.; Kashutina, E. A.; Levin, V. Yu. (a) (B)

ORG: Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

TITLE: Thermomechanical investigation of polyorganometallic siloxanes containing bivalent metals

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 5, 1966, 898-902

TOPIC TAGS: polymer, metal, siloxane, atom, thermomechanical property, bivalent metal

ABSTRACT: Thermomechanical properties of polymers with atoms of bivalent metals in the siloxane chain have been investigated. It was shown that the introduction into the basic polymer chain of metal atoms capable of forming coordination bonds considerably changed the thermomechanical properties of polymers. The effect of metal atoms on the flow temperature of polymers depends on the distance between the metal atoms and on the nature of the metal. Orig. art. has: 5 figures, 1 formula, and 1 table.

[NT]

SUB CODE: 11, 07/ SUBM DATE: 22May65/ ORIG REF: 009/ OTH REF: 001

Cord

1/1 90

UDC: 678.01:53+678.84

L 37010-66 ENF(j)/MNT(m)/T IJP(c) RM/WN/ED

ACC NR: AP6023434

SOURCE CODE: UR/0190/66/008/007/1312/1313

AUTHOR: Slonimskiy, G. L.; Andrianov, K. A.; Zhdanov, A. A.; Levin, V. Yu.; Belavtseva, Ye. M.46  
44

B

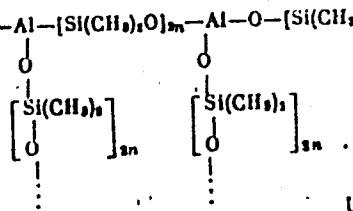
ORG: none

TITLE: Supramolecular structures of cross-linked high elastic polymers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 7, 1966, 1312-1313

TOPIC TAGS: elastic polymer, morphological form, supramolecular form, globular structure, siloxane, aluminosiloxane, polyaluminodimethylsiloxane, network structure, rubber, polymer cross linking, polymer structure, polycondensation, solubility, elasticity

ABSTRACT: A study of the structure of cross-linked polyaluminodimethylsiloxane rubber was completed by means of electron microscopic photographs of platinum-carbon replica. A UVM-100 electron microscope was used. The rubber used had the following chemical structure:



Card 1/2

UDC: 678.01:53+678.84

L 37010-66 APPROVED FOR RELEASE: 08/25/2000 ACC NR: AP6023434

CIA-RDP86-00513R001651410004-9"

Polycondensation was carried out at 200°C for 40 hours, after which the rubber lost its solubility completely, but preserved its elasticity. The electron microscopic photographs revealed a globular structure, with the smallest globules being 50–100 Å. Individual larger globules of 300–500 Å and aggregates of 3000–5000 Å were also observed. It was demonstrated that the cross-linked insoluble polyaluminodimethylsiloxane has morphological forms similar to those of the soluble high elastic polyaluminosiloxane. Curing is caused by the reaction of globular formations, either by chemical reactions, e.g., of OH groups, or by physical cohesion. The study revealed a previously unknown type of network structure. The structure is formed by coiling the elastic macromolecular chains and therefore can display high reversible deformations.<sup>1</sup> In the opinion of the authors this concept of the globular network structure can be expanded to other polymers.

SUB CODE: 07, 11/ SUBM DATE: 05Feb66/ ORIG REF: 003/ ATD PRESS: 5035  
[BN]

Card 2/2

L-67003-66 SFT(m)/SMP(j)/T IJP(c) AN/RM  
ACC NR: AP6027283 (A)

SOURCE CODE: UR/0191/66/000/008/0056/0050

AUTHOR: Korshak, V. V.; Slonimskiy, G. L.; Vinogradova, S. V.; Gribova, I. A.; Asikadskiy, A. A.; Krasnov, A. P.; Chumayevskaya, A. N.; Moldabayeva, M. K.

+8  
B

ORG: none

TITLE: Effect of fillers on the properties of compositions based on heat-resistant polymers

SOURCE: Plasticheskiye massy, no. 8, 1966, 56-58

TOPIC TAGS: filler, polymer physical property, impact strength, hardness

ABSTRACT: The effect of fillers (powdered copper and aluminum, talc, quartz, graphite and boron nitride added in amounts of 20, 40, 60, 80 and 90 wt. %) on the specific impact strength and hardness of compositions based on F-1 polyarylate (prepared from phenolphthalein and isophthalic acid) and FF-40 phenolphthalein-formaldehyde resin was studied. The compositions based on F-1 showed a decrease in impact strength with decreasing content of all fillers, probably because the filler particles hinder the development of fibrillar superstructures and make the polymer structure inhomogeneous, thus impairing its properties. The specific impact strength of specimens based on FF-40 was higher for all fillers than that of the original specimens, the metal powders having a greater effect than the mineral fillers. The hardness curves for F-1 showed maxima in the case of the metal powders, quartz, and boron nitride; the existence of

UDC: 678.6.01:536.495]:678.046.2/.3

Card 1/2

ACC NR: AP6027283

these maxima is explained. Talc did not increase the hardness of F-1 in any amount. The hardness of FF-40 was greater for all fillers than that of F-1 specimens. Orig. art. has 5 figures.

SUB CODE: 11, 1C/ORIG REF: 002

Card 2/2 vmt

L 01040-67 FWT(m)/FWP(j)/T IJP(r) WW/RM

SOURCE CODE: UR/0190/66/008/006/1109/1112

ACC NR: AP6019546

43

AUTHOR: Slonimskiy, G. L.; Askadskiy, A. A.; Korshak, V. V.; Vinogradova, S. V.; Gribova, I. A.; Chumayevskaya, A. N.; Krasnov, A. P.; Moldabayeva, M. K.

B

ORG: Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)TITLE: Investigation of the relaxation properties of filled polyarylates 15SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 6, 1966, 1109-1112TOPIC TAGS: solid mechanical property, polymer rheology, polyaryl plastic, synthetic material, POLYARYLATE, FILLER

ABSTRACT: Relaxation properties of commercial F-1 polyarylate filled with copper powder (0-80 wt %) were examined in the 140°-260°C temperature range and in the 50-600 kg/cm<sup>2</sup> load range. The object of the study was to fill the gap in the pertinent literature. The temperature dependence of the relaxation time for F-1 polyarylates with various copper contents is graphed. It was found that in up to 40 wt % copper, the overall activation energy of the relaxation of the copper filled F-1 polyarylate declines (in comparison to the unfilled F-1 polyarylate) with increasing copper content. For the 40-80 wt % copper range, the overall activation energy of relaxation increases with increasing copper content. Changes in the activation energy of relaxation as a

UDC: 678.01:53+678.674

Card 1/2

L 01010-67

ACC NR: AP6019546

O  
function of copper content in F-1 polyarylate are graphed. Orig. art. has: 5 figures,  
1 formula.

SUB CODE: 07,11/

SUBM DATE: 09Jun65/

ORIG REF: 007

awm

Card 2/2

KNUINYANTS, I.L., glav. red.; BAKHAROVSKIY, G.Ya., zam. glav. red.;  
BUSEV, A.I., red.; VARSHAVSKIY, Ya.M., red.; GEL'PERIN,  
N.I., red.; DOLIN, P.I., red.; KIREYEV, V.A., red.; MEYERSON,  
G.A., red.; MURIN, A.N., red.; POGODIN, S.A., red.; REBINDER,  
P.A., red.; SLONIMSKIY, G.S., red.; STEPANENKO, B.N., red.;  
EPSHTEYN, D.A., red.; VASKEVICH, D.N., nauchnyy red.; GALLE,  
R.R., nauchnyy red.; GARKOVENKO, R.V., nauchnyy red.; GODIN,  
Z.I., nauchnyy red.; MOSTOVENKO, N.P., nauchnyy red.;  
LEBEDEVA, V.A., mladshiy red.; TRUKHANOVA, M.Ye., mladshiy  
red.; FILIPPOVA, K.V., mladshiy red.; ZHAROVA, Ye.I., red.;  
KULIDZHANOVA, I.D., tekhn. red.

[Concise chemical encyclopedia] Kratkaia khimicheskaiia entsiklo-  
pediia. Red. koll.: I.L.Knuniants i dr. Moskva, Gos. nauchn.  
izd-vo "Sovetskaia entsiklopediia." Vol.1. A - E. 1961.  
(MIRA 15:2)  
1262 columns.

(Chemistry--Dictionaries)

SIAMKOVY, I.I., insh.

Shortcomings in the installation of K-201-130 turbine-generator  
units. Energ. stroi no.39:20-29 '64.  
(NIIA 17:11)

SLONIMSKIY, L. A.

Fungous flora of Uzbekistan. Vest. vener. No. 6, Nov.-Dec. 50.  
p. 32-?

1. Of the Laboratory Experimentation Department (Head -- Docent  
B. R. Dombrovskiy), Uzbek Skin-Venereological Institute (Director—  
Docent V. N. Matveyev; Scientific Director — Prof. A. S. Sel'manovich).

CINL 20, 3, March 1951

EXCERPTA MEDICA Sec 13 Vol 13/8 Dermatology Aug 59

2072. DATA RELATING TO THE STUDY OF SPECIES OF THE CAUSATIVE AGENTS OF DERMATOMYCOSIS IN THE UZBEK SSR (Russian text) -  
Slonimskiy A. Uzbek Dermato-Vener. Inst., Tashkent - From the symposium: VOPR. DERM. I VENER. (Tashkent) 1957, 6 (53-56) Illus. 1  
5,166 cultures of fungi were made in the Uzbek SSR in the period from 1946 to 1955; among the 2,592 cultures made from 1946 to 1949, *Microsporon ferrugineum* constituted 53.6% of all the cultures, *Trichophyton* 26.4%, *Achorion schoenleinii* 16% and mixed cultures 4%. In 83% of the mixed cases there were *Microsporon ferrugineum* together with *Trichophyton violaceum*, *Achorion schoenleinii* and *Trichophyton crateriforme*. In the cultures made in the period from 1950 to 1955, *Microsporon ferrugineum* constituted 17.3%, *Trichophyton* 47.3% and *Achorion schoenleinii* 33.7%. Amongst all the dermatophyte cultures, there were 1.7% of mixed cultures. Dermatomycosis was caused in 99.5% of the cases by parasites from the human. *Trichophyton violaceum* predominated amongst the trichophytons (35.5%).  
Mashkilleison Jr - Moscow (S)

EXCERPTA MEDICA Sec 13 Vol 13/8 Dermatology Aug 59

2073. RELAPSES AND REINFECTIONS IN X-RAY THERAPY OF PATIENTS WITH DERMATOMYCOSIS OF THE SCALP (Russian text) - Slobodin A.  
L. A. and Tareeva V. Ya. Dermato-Vener. Inst. and Munic. Mycol.  
Hosp., Tashkent - From the symposium: VOPR. DERM. I VENER. (Tashkent)  
1957, 6 (77-84) Tables 3

3,347 patients were treated with X-rays in the scalp; afterwards drug therapy was given; the group consisted of 1,728 patients with trichophyta, 1,502 cases of microsporia and 117 patients with favus. Half of the group was treated ambulatory. The patients were under observation after the completion of the treatment for a period of 3 to 6 months and up to several years. There were 0.8% of recurrences; the treatment was ineffective in 0.7%; reinfection amounted to 0.5% and subsequent infections with other types of fungi occurred in 0.06% of the cases. The majority of the recurrences were in patients with favus of the scalp (2.6%) and in trichophyta cases (1.2%). The quality of the X-irradiation, as well as the accuracy and thoroughness in the following drug therapy in treatment of patients with dermatomycoses of the scalp play an important part in the prevention of failures and relapses.

Mashkilleison Jr - Moscow (S)

SLONIMSKIY, L.A., kand.med.nauk; MATVEYEV, V.N., kand.med.nauk; SAGATOV, V.S.,  
vrach

Treating trichomycosis with a 4-percent epilin ointment. Med. zhur.  
(MIR 15:2)  
Uzb. no.9:17-20 S '61.

1. Iz mikologicheskogo otdeleniya Uzbekistanskogo nauchno-issledovatel'-  
skogo kozhno-venerologicheskogo instituta i 3-go Tashkentskogo kozhno-  
venerologicheskogo dispansera. (KETONES)  
(DERMATOMYCOSIS)

SLONIMSKIY, L.A., kand.med.nauk; LUK'YANOVA, A.S., vrach; SHIMONOV,  
Z.Yu.

Morbidity caused by epidermophytosis of the foot in some  
regions of the Uzbek S.S.R. Vest. derm. i ven. 37 no.7:  
70-72 Jl'63 (MIRA 16:12)

1. Mikrobiologicheskoye otdeleniye (zav. L.A.Slonimskiy)  
Uzbekskogo nauchno-issledovatel'skogo kozhno-venerologiches-  
kogo instituta (dir. - dotsent V.N.Matveyev).

SLONIMSKIY, L.A., FEDOROVSKIY, I.P., V.N. MATVEYEV  
SLONIMSKIY, L.A., FEDOROVSKIY, I.P., V.N. MATVEYEV, A.S.

Experience with the prevention of epidermophytosis in industrial  
plants. Vest. derm. i vener. 38 no. 4 86-88 Je 1984.

(MIRA 18:6)

I. M. Vologodskoye otdeleniye (zav. I.A.Slonimskiy) Uzbekskiy  
tsentral'nyi kozhno-venerologicheskiy institut (dir. -  
nacient V.N.Matveyev).

SLONIMSKIY, L. G.

31

2 MAY

Lyubchanskaya on the influence of mechanical  
stress upon oxidation processes; L. O. Slonimskii,  
V. A. Karzin, G. N. Itkin, E. V. Regelova and M.  
L'vov; Birs on the mechanism of fatigue in rubber;  
O. M. Bartenev and V. A. Galil-Ogly on the mech-  
anism and reproducibility of dynamic fatigue; A. S.  
Kuz'minskii, E. A. Heitlinger and E. V. Shemarina  
on diffusion and solubility of anti-agers and other  
compounding ingredients; A. S. Novikov, G. M.  
Bartenev and F. A. Galil-Ogly on the influence of  
the original molecular weight of rubber upon the  
mechanical properties and the dynamic fatigue of  
the vulcanizates; Ya. S. Zver' and A. S. Kuz'minskii  
on ageing of vulcanised rubber in atmospheric con-  
ditions; and A. I. Marin and M. P. Durova on crack  
prevention in rubber articles by surface swelling.  
The discussion of each paper is reported; and the  
volume is completed with the conference resolutions.

6324

NYC 10/1

SLONIMSKIY, L.N., professor; GORINSHTEYN, L.L., dotsent.

Construction of electric power stations for peat enterprises and  
collective farms. Torf.prom. 31 no.4:15-16 '54. (MLRA 7:6)

1. Moskovskiy torfyanoy institut. (Electric power plants)

SLONIMSKIY, Lev Motovich; FAYBISOVICH, I.L., nauchnyy red.;  
BORUNOV, N.I., tekhn.- red.

[Electrification of peat enterprises] Elektrifikatsiya  
torfopredpriatii. Izd.2., perer. i dop. Maskva, Gos-  
energoizdat, 1963. 399 p. (MIRA 16:11)  
(Peat industry) (Electrification)

SLONIMSKIY, M.B., inzhener.

Statistical quality control in stamping rotor and stator laminations.  
Vest.elektroprom. 27 no.12 D '56. (MIRA 10:1)

1. Khar'kovskiy elektrotekhnicheskiy zavod.  
(Sheet-metal work--Quality control)

SLONIMSKIY, R.I., inzh.

Four-knife cutter head. Der.prom. 10 no.5:24-25 My '61.  
(MIRA 14:5)

1. Moskovskiy avtozavod im. Likhacheva.  
(Planing machines)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9

SLONIMSKII, S. L.

"Method for Handling Hypodermic Needles with Metallic Chips Attachment to the Glass  
Portion," Fel'disher i Akusher., No. 9, 1949.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9"

SLONIMSKIY, S.L.

Pocket card file of the district epidemiologist. Zhur.mikrobiol.epid.i immun.  
no.9:62 S '53. (MLRA 6:11)  
(Public health)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9

SOVIET UNION, S.S.R.

Causes of the outbreak of acute intestinal infections in nurseries.  
Zbir.mikrobiol.eoli. i immun. 28 no.7:15) Jl '57. (MIR 10:10)  
(INTESTINES--DISEASES) (CHILDREN--DISEASES)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410004-9"

ALEKSEYEV, A.V.; POPILOV, L.Ya.; GUSEV, V.N., laureat Stalinskikh premiy, inzh., red.; SLONIMSKIY, V.I., kand. tekhn.nauk, red.; SOKOLOVA, L.V., tekhn. red.

[Electric hardening of tools] Elektroprochnenie instrumenta. Moskva, Mashgiz, 1952. 67 p. (Biblioteka elektrotehnologa, no.9) (MIRA 16:6)

(Tool steel—Hardening)

KOSOLAPOV, I.I.; KOSMACHEV, I.G.; VISHNITSKIY, A.L.; POPILOV, L.Ya., inzhener,  
retsenzent; SLOWIMSKIY, V.I., [deceased], kandidat tekhnicheskikh  
nauk, redaktor; DLUZHANSKAYA, Ye.A., tekhnicheskiy redaktor

[Work with anodic-mechanical grinders] Rabota na anodno-mekhaniche-  
skikh zatochnykh stankakh. Moskva, Gos.nauchno-tekhn.izd-vo mashino-  
stroitel'noi lit-ry, 1952. 172 p. [Microfilm] (MIRA 9:3)  
(Grinding and polishing)

L 23390-65 EWT(m)/EWP(v)/EPR/T/EWP(t)/EWP(k)/EWP(b) Pf-4/Ps-4 IJP(c) JD/HM  
ACCESSION NR: AP5003661 S/0286/65/000/001/0027/0027

AUTHORS: Mikhaylov, A. S.; Slonimskiy, Ye. V.

TITLE: A method for arc welding under argon of overlapping joints between titanium and aluminum or between their alloys. Class 21, No. 167265

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 1, 1965, 27

TOPIC TAGS: welding, welding technique, welding technology, arc welding, argon, aluminum, titanium

ABSTRACT: This Author Certificate introduces a method for arc welding under argon of overlapping joints between titanium and aluminum or between their alloys. To obtain a direct joint, aluminum is melted by the heat generated in the course of laying a welding bead in titanium, so that only aluminum is melted at the joint, while titanium remains in the solid state.

ASSOCIATION: none

SUBMITTED: 22Nov61

ENCL: 00

SUB CODE: MM, DE

NC REP Sov: 000

OTHER: 000

Card 1/1

L 63952-65 EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EMP(v)/T/EMP(t)/EMP(k)/EMP(b)/  
EWA(c) IJP(c) MJW/JD/HM/JW/JG  
ACCESSION NR: AP5020156

UR/0135/65/C00/008/0001/0003 64  
621.791:669.295.5:669.35 C19  
B

AUTHOR: Mikhaylov, A. S. (Engineer); Slonimskiy, Ye. V. (Engineer); Senin,  
A. M. (Engineer); Sukhorukov, A. P. (Engineer)

TITLE: Welding titanium alloys to copper and its alloys

SOURCE: Svarochnoye proizvodstvo, no. 8, 1965, 1-3

TOPIC TAGS: welding, TIG welding, titanium alloy, copper, copper alloy, titanium alloy copper welding, dissimilar metal welding, molybdenum containing alloy, niobium containing alloy, tantalum containing alloy/VT15 alloy, BrKh08 bronze, 11 copper alloy

ABSTRACT: The feasibility of welding titanium alloy to copper and its alloys has been investigated. Sheets 1.5-2 mm thick of  $\beta$ -titanium alloy VT15 (3.50% Al, 7.50% Mo, and 11.30% Cr) and experimental  $\beta$ -alloys containing 20 Mo, 30 Mo, 20 Nb, 30 Nb, or 30 Ta were TIG welded to M3 copper. The best results were achieved with Ti-30 Nb and VT15 alloy: a tensile strength of 18.0-25.4 and 20.5-24 kg/mm<sup>2</sup>, and a bend angle of 172-180 and 142-180 deg, respectively. The

Card 1/2

L 63952-65

ACCESSION NR: AP5020156

failure occurred in copper. With other alloys failure occurred mostly in the weld. Good results were also obtained in welding Ti-30 Nb alloy to BrKh08 bronze and VT15 alloy to copper-cobalt-beryllium alloy 11. The weld strength was roughly the same as that of the copper alloys at all temperatures up to 800C. Thus, copper alloys can be directly welded to titanium alloys with a stable  $\beta$  structure. Such an alloy can also be used as an insert in welding copper alloys to other types of titanium alloys. Orig. art. has: 4 figures and 4 tables. [ND]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 005

OTHER: 000

ATD PRESS: 4071

Card 2/2

ACC NR: AP6021798

(A)

SOURCE CODE: UR/0413/66/000/012/C062/C062

INVENTORS: Mikhaylov, A. S.; Oleshchuk, M. F.; Slonimskiy, Ye. V.; Magnitskiy, O. N.

ORG: none

TITLE: A chamber for hand welding in a controlled atmosphere. Class 21, No. 182810

SOURCE: Izobroteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 62

TOPIC TAGS: welding, metal welding, welding equipment, welding technology

ABSTRACT: This Author Certificate presents a chamber for hand welding of chemically active materials in a controlled atmosphere. The chamber consists of a casing with a lid (see Fig. 1). To provide for turning the welded product into a position (necessitated by the technical requirements and the shape of the object) without opening the lid, the chamber is provided with a mechanism for turning the welded object horizontally, and also with a mechanism for turning the casing through a certain angle in respect to the vertical axis.

Card 1/2

UDC: 621.791.753.9.039.

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[deceased] Instituta meditsinskoy parazitologii i tropicheskoy  
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SECRET, U.S.; RESTRICTED, U.S.; DOWNGRAD, U.S.

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Instituta meditsinskoy parazitologii i tropicheskoy meditsiny  
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